

## *Vibrio parahaemolyticus* *Vibrio vulnificus*

### **I. IDENTIFICATION**

- A. **CLINICAL DESCRIPTION:** Infection with these *Vibrio* species occurs through ingestion of raw or inadequately cooked seafood, or food contaminated by raw seafood, or by rinsing food with contaminated water. Wound infections from either of these organisms can occur when open skin wounds are exposed to warm seawater.

They are associated with three major syndromes: diarrhea, septicemia or wound infection. *Vibrio parahaemolyticus* typically is a disease of moderate severity lasting 1 - 7 days, characterized by watery diarrhea, abdominal cramps and sometimes nausea, vomiting, fever and headache. *Vibrio vulnificus* produces septicemia in persons with chronic liver disease, chronic alcoholism or hemochromatosis; or those who are immunosuppressed. *V. vulnificus* appears 12 hours to 3 days after eating raw or undercooked seafood, especially oysters and over 90% of patients who become hypotensive die.

- B. **REPORTING CRITERIA:** Clinical diagnosis initially; laboratory confirmation required to meet case definition.
- C. **LABORATORY CRITERIA FOR CONFIRMATION:**
- Isolation of the organism from stool, vomitus, blood or wound exudates. Special laboratory techniques may be necessary, so alert the personnel that *Vibrio* infection is suspected, **OR**
  - Identifying one hundred thousand or more organisms per gram in suspected food product (usually seafood).
- D. **KENTUCKY CASE DEFINITION:** A case that is laboratory confirmed.

### **II. ACTIONS REQUIRED / PREVENTION MEASURES**

- A. **KENTUCKY DISEASE SURVEILLANCE REQUIRES URGENT NOTIFICATION:** REPORT TO THE LOCAL OR STATE HEALTH DEPARTMENT **IMMEDIATELY** upon recognition of a case or suspected case in a time period not greater than 24 hours. If health department personnel cannot be contacted directly, notification shall be made by electronic submission or by telephone to the emergency number of the Division of Epidemiology and Health Planning: **1-888-973-7678**.
- B. **EPIDEMIOLOGY REPORTS REQUIRED:**
1. Kentucky Reportable Disease Report Form – EPID 200 (Rev. Jan/03).
  2. Cholera and Other *Vibrio* Illness Surveillance Report-CDC 52.79 (Rev. 11/98)

See page 85 of this reference book for a copy of form.

C. PUBLIC HEALTH INTERVENTIONS:

- Educate consumers about the risks associated with eating raw seafood unless it has been irradiated.
- Educate seafood handlers and processors on preventive measures.

**III. CONTACTS FOR CONSULTATION**

A. KENTUCKY DEPARTMENT FOR PUBLIC HEALTH, SURVEILLANCE AND HEALTH DATA BRANCH: 502-564-3418.

B. KENTUCKY DEPARTMENT FOR PUBLIC HEALTH, COMMUNICABLE DISEASE BRANCH: 502-564-3261.

C. KENTUCKY DEPARTMENT FOR PUBLIC HEALTH, DIVISION OF LABORATORY SERVICES: 502-564-4446.

**IV. RELATED REFERENCES**

1. Chin, James, ed. *Vibrio parahaemolyticus* Enteritis. In: Control of Communicable Diseases Manual. 17<sup>th</sup> ed. Washington, DC: American Public Health Association, 2000: 110-111.
2. Chin, James, ed. Infection with *Vibrio vulnificus*. In: Control of Communicable Diseases Manual. 17<sup>th</sup> ed. Washington, DC: American Public Health Association, 2000: 111-113.
3. Pickering, LK, ed. Other *Vibrio* Infections. In: 2000 Red Book: Report of the Committee on Infectious Diseases. 25<sup>th</sup> ed. Elk Grove Village, IL: 640-641.